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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. _____

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In re Application of: ROBERT A. WIEDEMAN ET AL

Serial No.: 09/334,386

Filed: June 16, 1999

For: ISP SYSTEM USING NON-GEOSYNCHRONOUS ORBIT SATELLITES

APPELLANTS' REPLY BRIEF

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#16



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of: ROBERT A. WIEDEMAN ET AL : Date: July 21, 2004
Serial No.: 09/334,386 : Group Art Unit: 2666
Filed: June 16, 1999 : Examiner: M. Jagannathan
For: ISP SYSTEM USING NON-GEOSYNCHRONOUS :
ORBIT SATELLITES :

APPELLANTS' REPLY BRIEF

Commissioner for Patents
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Alexandria, VA 22313-1450

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Sir:

This Reply Brief is in response to the Examiner's Answer of June 29, 2004. This brief is submitted in accordance with the provisions of 37 CFR §1.193. Appellants gratefully acknowledge the Examiner's confirmation as to the correctness of categories 1-9 in Appellants' brief and the Examiner's agreement with all the details of the references, Chao and Wiedeman et al, and the instant application as provided by Appellants on pages 3-5.

ARGUMENT

The Examiner has taken the position that Chao '776 discloses that in order to enhance communication reliability on links with lower quality of service, a source terminal can choose to transmit multiple copies of the same packet to the destination gateway. The Examiner goes on to state that the destination gateway can recognize these repeated packets during reordering by way of the payload of the packet which includes identical session identification and sequence numbers in order to not include two of the same packet in reordering procedure. The Examiner directs Appellants' attention to col. 5, lines 20-29 and col. 6, lines 1-15 of Chao. According to the Examiner's interpretation, it is Examiner's belief the above disclosures of Chao teach limitations of selectively generated multiple copies of packet and at least one duplicate copy of a given packet is not used during the execution of packet reordering procedure. Additionally, the Examiner directs Appellants' attention to disclosure of above mentioned enhancement of communication reliability and payload of repeated packets in Chao '776, col. 5, lines 39-58. The Examiner takes the position that there is disclosed the payload includes ordered data from a source terminal directed towards a

destination terminal and a gateway in the communication system requesting an optimal payload length from a satellite which evaluates system and communication parameters including priority, hop count, number of hops required, error rates, available satellites to link source and destination gateways and cost of service. Therefore, the Examiner believes as stated that Chao '776 teaches multiple copies of a packet being selectively generated based on a direction of transmission, from source to destination or from destination to source.

Respondents respectfully submit that at col. 5, lines 20-29 there is disclosed “.... The destination gateway 34 (Fig. 1) uses the payload information 76 to reassemble the payload 80 in the correct order before forwarding the payload to the destination terminal 36 (Fig. 1). For example, a second packet arrives at the destination gateway 34 before the first packet. The destination gateway 34 orders the payload data in the correct sequence based on the sequence number 100 in each of the first and second packets 70. The destination gateway 34 then transmits the data to destination terminal 36.”

Respondents respectfully submit that no where in this disclosure relied upon by the Examiner is there any teaching, as contended by the Examiner, that selectively generated multiple copies of packet and at least one duplicate copy of a given packet is not used during the execution of packet reordering procedure. Respondents respectfully contend that what is set out in this teaching is employing a destination gateway which uses the payload information to reassemble the payload 80 in the correct order before forwarding the payload to the destination terminal 36 (Fig. 1). Nothing in this teaching either teaches, suggests or implies selectively generating packets employing at least one of the following criteria: (a) whether the packet was previously duplicated by a previous node, and (b) a direction of transmission, from source to destination or from destination to source as required by element 4 of claim 1, nor are the requirements of the last wherein clause satisfied in claim 1 requiring that “at least one duplicate copy of a given packet is not used during the execution of a packet reordering procedure in the destination node, or at an intermediate node.”

Further, Respondents respectfully submit at col. 6, lines 1-15 of Chao there is stated “The payload information of the packet 70 includes identical session identification 98 and sequence numbers. Thus, the destination gateway 34 (Fig. 1) recognize the packets 70 as repeated packets. The gateway 34 then compares the payload of the repeated packets. The repeated payloads are compared bit by bit. That is, the first bit of the payload of each packet is compared, then the next bit is compared until each bit has been compared. The value of each original transmitted bit is determined by a simple majority. Since a simple majority is required to determine

“the value of the original transmitted data, it is desirable to transmit an odd number of repeat packets. In a preferred embodiment of the present invention three copies of the terminal data are sent when repetition is desired.”

Again, Respondents respectfully contend that no where in this recited passage relied upon by the Examiner is there taught, suggested or implied that selectively generated multiple copies of packet are generated based on the criteria that includes at least one of (a) or (b) as recited above and, furthermore, the requirement as stated in the last wherein clause is likewise not anticipated requiring “wherein at least one duplicate copy of a given packet is not used during the execution of a packet reordering procedure in the destination node, or at an intermediate node.”

Respondents respectfully submit that the Examiner in part acknowledges these deficiencies by saying in his Answer “According to Examiner’s interpretation, it is Examiner’s belief the above disclosures of Chao teach limitations of selectively generated multiple copies of packet and at least one duplicate copy of a given packet is not used during the execution of the packet ordering procedure.”

Further, at col. 5, lines 39-58 there is a general discussion of packet transfer including “For example, a terminal 30 transferring ten ATM data cells may require two packets 70. The first packet’s payload 80 includes the first six ATM data cells in their correct order. The next packet 70 includes the remaining four ATM data cells in their correct order. The ATM data cells including all protocol and header information are encapsulated into the respective payloads.

“A communication stream is segmented into packets 70. For each communication stream, a gateway 24 (Fig. 1) requests an optimal payload length 88 from a satellite 12 (Fig. 1). The satellite evaluates system parameters and communication parameters. The system parameters include which satellites are available to link the source and destination gateways, the loads on each of the available satellites, error rate of each satellite, cost of service, and the number of hops required. The communication parameters include the priority, the hop count, and amount of data to be transferred.”

Again, Respondents respectfully submit that there is no teaching, suggestion or implication that multiple copies of a packet are selectively generated within the data communications network based on a criteria that includes at least one of (a) or (b) as recited above nor is there any teaching regarding at least one duplicate copy of a given packet is not used during the execution of a packet reordering procedure in the destination node, or at an intermediate node as required by claim 1.

The Examiner responds to Respondents’ arguments with regard to claims 2 and 26 by referring to the Examiner’s response to claimed subject matter of generation

of multiple copies based on criteria and one duplicate copy not used during execution. Further, the Examiner respectfully points out regarding Respondents' arguments regarding claims 2 and 26 and the conspicuous absence of employing criteria (a) and (b), that the claimed subject matter discloses employing at least one of criteria (a) and (b). Respondents respectfully submit that in referring above to Examiner's response to claimed subject matter of generation of multiple copies there is clearly seen to be no teaching, suggestion or implication generating such packets according to the criteria in (a) or (b) and Respondents respectfully point out that the Examiner has failed to find a generation of multiple copies in accordance with either criteria (a) or (b).

The Examiner presents this very same argument with regard to claims 3 and 26 in answer to Respondents' arguments directed thereto and respectfully again points out regarding claims 3 and 26 and the conspicuous absence of criteria that includes (a) and (b), that the claimed subject matter discloses employing at least one of criteria (a) and (b).

Respondents respectfully submit that the limitations as set out in claim 1 in element 3 directed to packet generation according to either (a) or (b) criteria and the requirement of at least one duplicate copy of a given packet not used during the execution of packet reordering are no where to be found in the passages as relied upon by the Examiner and therefore this ground of rejection, as above, should fall.

The Examiner uses the very same argument and basis for responding to Respondents' arguments with regard to claims 4 and 27, as well as claims 5, 10, 28 and 33. Respondents have respectfully traversed these rejections with the arguments presented above and for these reasons Respondents respectfully contend that these grounds of rejection should likewise fall.

The Examiner responds to Respondents' arguments regarding the rejection of claims 8-9, 31-32 under 35 U.S.C. 103(a), directing Respondents' attention to col. 3, lines 5-11 of Chao '776, the Examiner's contention that there is included low earth and medium earth orbit satellites and the reference again to claimed subject matter of generation of multiple copies based on criteria and one duplicate copy not used during execution as recited above and traversed above. Respondents take the position that the Examiner's contention that low earth and medium earth orbit satellites are included and the additional recitation in col. 3, lines 5-11 does not cure the deficiencies of these rejections as above stated which are hereby respectfully incorporated by reference. Further, likewise neither of criteria (a) and (b) are to be found in the passages of the references relied upon by the Examiner for the reasons stated above.

The Examiner answers Respondents' arguments in asserting patentability of claims 11-14, 34-36 as distinguishable over Chao by stating that Wiedeman et al

discloses gateway using power control information in order for power density of antenna not to exceed a certain threshold and to terminate the connection if threshold is exceeded which teaches claimed semi-permanent links. Additionally, the Examiner refers Respondents to above Examiner's response to claimed subject matter of generation of multiple copies based on criteria and one duplicate copy not used during execution. Further, the Examiner respectfully points out regarding Respondents' arguments regarding claims 11-14, 34-36 and the conspicuous absence of criteria that includes (a) and (b), that the claimed subject matter discloses employing at least one of criteria (a) and (b).

The Examiner's response to Respondents' arguments with regard to claims 13-14 is to disclose that Wiedeman et al '423 discloses a CDMA subsystem (Fig. 5) in a gateway including a vocoder which is not located in user terminal and discloses user terminal including a variable rate vocoder. The Examiner directs Respondents' attention to col. 10, lines 49-57 and, additionally, to Fig. 2 providing location of CDMA subsystem in gateway.

Respondents respectfully submit that in Wiedeman et al '423 there is disclosed "A method and system wherein a system gateway (18) determines, from closed loop power control information, a power density at an antenna (13a) of a user terminal 13. The gateway also maintains a record of a duration of time that the power density exceeds a specified threshold. The gateway determines if an averaged transmitted power density associated with the antenna of the user terminal will equal or exceed at least one of a predetermined threshold level, within a specified period of time, or an absolute threshold level. If the gateway determines that a threshold will probably be exceeded if the call connection is maintained, the gateway terminates the connection prior to a time that the user terminal averaged transmitted power density level equals or exceeds the predetermined or absolute threshold level."

Respondents respectfully submit that these teachings do little to cure the deficiencies as recited above with regard to packet generation subject to criteria (a) or (b) and the packet reordering protocol as described above. It is Respondents' position that the disclosure of Wiedeman et al '423 and the teachings relied upon therein by the Examiner do little to cure the deficiencies recited above with regard to claim 1 from which claims 13 and 14 depend.

The Examiner responds to Respondents' arguments regarding claim 36 by stating that the Leopold reference discloses communication system including low earth orbit satellites with a voice encryption system to overcome Respondents' argument against official notice taken by Examiner regarding obviousness of encryption of voice data packets. The Examiner contends that the voice encryption system of Leopold

provides privacy and confidentiality for subscribers in communication system and, additionally, the Examiner refers Respondents to the Examiner's response to claimed subject matter of generation of multiple copies based on criteria and one duplicate copy not used during execution. Further, the Examiner points out to Respondents that claim 36 discloses employing at least one of criteria (a) and (b). Although Respondents do not necessarily agree that Leopold '693, cited by the Examiner for the first time in his Answer, discloses an encryption system which provides privacy and confidentiality for subscribers in communication systems, Respondents respectfully submit this does little to cure the deficiencies of the rejections of claim 36 as presented by the Examiner with regard to the packet generation employing at least one of criteria (a) or (b) or the non-use of a duplicate copy of a given packet as provided for in the last limitation of claim 1, more fully explained above which is hereby respectfully incorporated by reference.

For these reasons, in addition to those stated in the Appeal Brief, Respondents respectfully submit that the rejections should be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Anthony W. Karambelas', written in a cursive style.

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